

MULTIPLE ANEURYSMS IN A CHILD

BY

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The patient is a well-grown, intelligent, active but anaemic boy of four years old; the son of observant, healthy white parents, American Missionaries on leave from Sierra Leone. The boy had had about six attacks of fever, each of short duration, in Freetown, and the latest of these occurred in October last. His tongue was clean and moist and without tremor; his gums healthy; his pulse regular and of good quality, with frequency of ninety-two beats per minute while he was in the erect posture. His heart was free from murmur and normal, and no enlargement of his liver or spleen or lymph glands could be detected. There was no sign of rickets and his urine (acid, 1,022) was free from albumen and sugar. His parents suggested that there was oedema of his eyelids, but at the time of examination (about 4 p.m.) I could not satisfy myself that oedema was present.

The upper end of the left hypothenar eminence was slightly enlarged, and prominent, and was the site of a pulsating tumour which could be 'emptied' by pressure over it, and which then filled again 'per saltum.' Pressure over the ulnar artery greatly diminished, but did not entirely obliterate pulsation in the tumour. The surface tissues over the tumour were unaltered in colour and texture. Just above this tumour, and separated from it by a narrow surface depression, was a second one of similar character.

There was no history of injury antecedent to the first hypothenar tumour, which was first noticed in March, 1920; the second swelling appeared in October, 1920: the parents state that it came quickly two days after a fall, which, however, did not cause bruising or damage to the skin. Subsequently a small pulsating little vessel, slightly bluish in colour was noticed about the middle of the right

side of his neck, and some time after this, while his mother was examining his neck, she found another larger pulsating, uniformly oval swelling a little lower down, occupying the greater portion of the base of the anterior triangle of his neck above the clavicle. The skin over it was freely moveable, as was also the tumour from side to side, but it was not capable of displacement vertically. Vigorous pulsations were easily observable by sight and touch in the little vessel; the pulsations could be stopped by slight pressure below the point where it lay immediately beneath the skin. The larger, lower tumour could not be emptied by pressure over it, but the pulsations, synchronizing with the ventricular systole, appeared to be distensible in character, and with a stethoscope a loud bruit was audible over it. The radial pulses were of equal volume, and no difference in colour or temperature of the hands could be detected. It could not be decided whether the wrist and hypothenar tumours were separated by normal vessel or whether the surface depression was due merely to compression by fascial bands. None of the tumours caused any pain, and only when the larger neck tumour was firmly pressed in an effort to empty it did the patient show any sign of distress.

Examination of the blood showed *Plasmodium falciparum* infection and also eosinophilia (about 12 per cent.). Several very careful and prolonged examinations of the faeces yielded negative results.

There appears to be no doubt that the two distal tumours are arterial aneurysms, and that both the abnormal conditions in his neck are of the same kind. The alternatives of 'venous pulsation,' and 'enlarged lymph gland with transmitted pulsation' were borne in mind at the time of the examination.

Macfie and Ingram (1920) have described 'Three cases of Cardiac Aneurysms in Native Boys of the Gold Coast,' and discuss the question of aetiology, and the suggestion is made that malaria may have been a factor in causation of the aneurysms.

Aneurysms of the large arteries have been frequently reported as having occurred in young children, even as early as in foetal life, but in the present case not only was the child four years old, but the aneurysms were several and their etiology obscure. Stress has been laid by many on the effect of septic emboli in weakening the artery wall by inflammation spreading from the infective clot in causing

aneurysms in children suffering from septic endocarditis, but no such cause was operative in this case. Syphilis is also commonly considered a cause, but though no Wasserman blood test was made on this boy, it is extremely improbable that syphilis was present. Though there was a history of a fall antecedent to the appearance of one of the tumours in this case the relationship of the two things as cause and effect was not definite, while in the cases of the neck tumours any competent injury must have been obvious at the time it occurred. As causes, it appears that septic emboli, syphilis and injury were not present in this case.

At one time, the presence of four arterial dilatations in a child of four years old would have been held to justify the non-illuminating diagnosis of 'aneurysmal diathesis.'

REFERENCE

- MACFIE, and INGRAM (1920). Three cases of Cardiac Aneurysm in Native Boys of the Gold Coast. *Ann. Trop. Med. and Parasitol.*, Vol. XIV, p. 147.